

Intention of Retention and Its Predictors among PHC Workers in Buraidah, Saudi Arabia

Adel Alrashdi · Unaib Rabbani

Family Medicine Academy, Qassim Health Cluster, Buraidah, Saudi Arabia

Keywords

Job retention · Turnover · PHC workers · Predictors · Saudi Arabia

Abstract

Introduction: The turnover of healthcare professionals is seen to be a significant contributor to the shortage of healthcare personnel. This study aimed to evaluate the level and predictors of retention intention among primary health workers (PHWs) in Buraidah, KSA. **Methods:** This cross-sectional study was conducted among primary healthcare workers in Buraidah, Qassim between the period from October 2023 to March 2024. Data were collected using an online self-administered questionnaire. The used scales in the study were the Job Autonomy Scale (JAS) and the Anticipated Turnover Scale (ATS). Data were analyzed using SPSS version 21.0. **Results:** A total of 194 healthcare workers were enrolled in this study; there were 50.5% males and 35.1% physicians. The mean \pm SD of turnover intention was 37.2 ± 7.92 out of a maximum possible score of 75. The mean score of turnover intention was significantly affected by job title ($p < 0.001$), education level ($p = 0.005$), marital status ($p = 0.004$), attending certificate programs ($p = 0.002$), work method autonomy ($p < 0.001$), and total autonomy score ($p = 0.008$). Multivariate analysis revealed that the predictors of turnover intention were other job titles B 8.53 (95% CI: 6.17–10.89), ever married B –3.87 (95% CI: –5.80 to 1.94), and

not attending certificate programs B –5.55 (95% CI: –8.46 to –2.63). Job autonomy did not show any association with turnover intention. **Conclusion:** Turnover intention was a significant problem among PHW in Buraidah, Saudi Arabia. The predictors of turnover intention included job title, marital status, and attending or having certificate programs. There is a need to address the issue of turnover intention among PHWs to ensure the provision of quality primary healthcare services to the population.

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Introduction

Primary healthcare centers (PHCs) are the patient's first point of communication with the healthcare system. Many countries use health indicators to evaluate the effectiveness of their primary healthcare system [1]. In both statements, primary healthcare is recognized as a key component of enhancing health and health outcomes and the cornerstone of a successful and responsive healthcare system [2].

Primary health workers (PHWs) are direct providers of PHC, and the number of PHWs directly influences the quality, quantity, and outcomes of PHC. Health professionals who are properly qualified, talented, motivated, and devoted should deliver these services with compassion,

respect, and dignity [3]. However, primary healthcare facilities worldwide are confronting major labor shortages [4], not just in low- and middle-income countries [5] but also in developed nations.

The health system in Saudi Arabia, like that of many other nations throughout the world, is experiencing serious issues as a result of rising demand for health services as the country's population grows, high healthcare expenditures, inequitable access, and concerns about the quality and safety of care [6]. In the KSA, the sector is undergoing rapid reform as part of Saudi Arabia's Vision 2030, by implementing three pillars that will lay the groundwork for successfully achieving this vision: facilitate access to health services, improve the quality and efficiency of health services, and promote health risk prevention. Saudi Arabia has moved its investment and attention away from secondary and primary sectors [7].

Turnover, or retention, is identified as the act of quitting, and it is of critical value in human resource management and the retention of present employees [8]. Retention intention (RI) is the likelihood of an employee leaving their job within a certain time frame [9]. RI is regarded as one of the most accurate indicators of turnover behavior [10]. Previous research has looked at the predictors that determine the RIs of PHWs. Several predictors, such as demographic characteristics, work fulfillment [11], work-related stress [12], exhaustion [13], work-life balance, interpersonal communication, and patient violence, were reported. While these characteristics have undoubtedly been connected to RI, several researchers have focused on issues other than work. Han and Humphreys discovered that key community integration factors influence overseas-trained doctors' decision to stay or leave a rural community in Australia [14]. Stewart et al. [15] discovered that community satisfaction is an important predictor of intent to leave among rural and remote registered nurses in Canada; and Chao et al. [10] and Lu et al. [9] discovered a significant correlation between work-family conflict and the TI of PHWs in Taiwan and Guangdong.

There has been minimal investigation into the predictors of Saudi Arabia's PHW turnover. Furthermore, the major focus of the research has been on job satisfaction rather than turnover. On the other hand, healthcare professionals must understand PHWs' intentions to stay and the causes of their departure. Internationally, research has focused on the relationship between organizational variables such as social support from direct supervisors, social support from coworkers, autonomy, and organizational commitment and intention to stay. Therefore, the present study aimed to evaluate the prevalence and predictors of RI among PHWs in Buraidah, KSA.

Review of Literature

Turnover is when workers quit an organization to pursue other opportunities [16]. Employee RI displays their desire to quit their present work within a specific time frame. Work role and stress, workplace violence, work environment and experience, organizational system and climate, job satisfaction, and burnout are all related [17].

A study from China analyzed the desire of general practitioners to leave their jobs and revealed that the average turnover intention score for general practitioners was 15.40 out of 24 and 78.35% of them reported a moderate or higher degree of turnover. The probability of leaving a position among the participants was associated with male gender, higher education, a temporary work contract, a reduced level of job satisfaction, and increased levels of emotional exhaustion [18].

Almalki et al. [19] investigated the correlation between PHC nurses' quality-of-work-life and turnover intention in Saudi Arabia. The findings indicated that respondents were unsatisfied with their work lives, with over 40% reporting a desire to leave their present PHC facilities.

Recently, Al Muharraq et al. [20] investigated the relationship between workplace bullying and nurse turnover, the prevalence of workplace bullying, and the desire to leave among nurses. A strong turnover intention was demonstrated by 31.7% of the participants. It was discovered that age had an inverse relationship with workplace bullying. There was a significant positive relationship between workplace bullying and the desire to leave.

Methods

Study Design and Population

This was a cross-sectional study conducted at the PHCs of Buraidah, Qassim between the period from October 2023 to March 2024. Buraidah is the capital of the Qassim region with an estimated population of more than 677,000 people, the half of region's total population. The study was conducted on PHWs. There are about 45 functional PHCs in Buraidah.

Sample Size

Due to the finite and relatively small population of eligible PHWs in Buraidah, we opted for a census approach. This ensured that data were collected from all relevant individuals, providing the most comprehensive and accurate picture for our study.

Sampling

Participants in the study were selected conveniently. All the workers who have been working in the PHC centers for at least 1 year were eligible to participate in the study. Interns, students, and locum staff were excluded. The principal investigator visited each of the PHCs in Buraidah after obtaining permission from the

PHC center’s manager. Eligible healthcare workers were given a brief description of the study and its objectives and invited to participate in the study.

Data Collection Tool and Procedure

A self-administered questionnaire was used to collect the data from participants. A questionnaire was developed after a review of the literature and used validated tools to measure the study constructs, i.e., job autonomy and turnover intention. The questionnaire involved three sections: the first one investigated demographic information such as age, sex, marital status, nationality, job title, education level, and alternate source of income. The second section included the Job Autonomy Scale (JAS) [21]. This scale has nine items grouped into three themes: work method autonomy, work scheduling autonomy, and work criteria autonomy. The responses were collected on a 5-point Likert scale. For each item, domain, and total scale, the mean score was calculated. The maximum possible score was 5, where a higher score indicates high job autonomy. The third part collected data on staff turnover intentions using the Anticipated Turnover Scale (ATS) [22]. This scale has 15 items that are rated on a Likert scale of 1–5. The maximum possible score for ATS is 75, where a higher score indicates higher turnover intention. The questionnaire was transformed into Google Forms for data collection. A link to the questionnaire was provided to each of the eligible participants.

Data Analysis

Statistical Package for Social Studies (SPSS) version 22.0 was used for data analysis. Descriptive statistics were used. Mean scores for all the scales were measured after summing up all the items in the scale according to the standard procedures. Data were checked for normality. Relationships of ATS with other scales and sociodemographic characteristics of the participants were measured using Pearson correlation, *t* test, and ANOVA. Linear regression was used to measure the adjusted association of turnover intention with sociodemographic variables and, job autonomy. Dummy variables were created for the independent variables with more than two categories. In the first step, univariable linear regression was done. Variables that were either statistically significant or biologically plausible in the univariate were carried forward in the multivariable model. Variables in the final model were retained based on their significance and contribution to the model as judged by *R*² values. A *p* value ≤ 0.05 was considered significant.

Ethical Considerations

The study protocol was reviewed and approved by the Qassim Regional Bioethics Committee (Approval No. 607/45/5564, date: November 7, 2023). Written informed consent to participate was not directly obtained but inferred by the completion of the survey. The first page of the online survey link contained consent and would proceed further only if the participant agreed. Confidentiality was assured to all participants who agreed to participate in this research.

Results

A total of 194 healthcare workers participated in the study. Half (50.5%) were male. About 69% were 35 years or younger. According to the job, physician (35.1%) and

Table 1. Sociodemographic and professional characteristics

Variable	% (n)
Sex	
Male	50.5 (98)
Female	49.5 (96)
Age, years	
Less than or equal to 35	69.1 (134)
More than 35	30.9 (60)
Job title	
Registered nurse	28.4 (55)
Enrolled nurse	4.1 (8)
Lab technician	6.2 (12)
Clinical officer	4.6 (9)
Nutritionist	5.2 (10)
Physician	35.1 (68)
Counselor	3.6 (7)
Pharmacist	4.1 (8)
CHEW	4.1 (8)
Support staff	4.6 (9)
Education	
Diploma	6.7 (13)
Bachelor	56.2 (109)
Master	13.4 (26)
PhD/board	23.7 (46)
Marital status	
Single	35.1 (68)
Married	62.9 (122)
Divorced	1.0 (2)
Widow	1.0 (2)
Alternative sources of income	
Business	6.7 (13)
Consultation	1.0 (2)
Part-time job	0.5 (1)
None	91.8 (178)
Have you ever attended any certificate programs?	
Yes	13.4 (26)
No	86.6 (168)

registered nurses (28.4%) represented the largest proportion of the participants. The majority of them had a bachelor’s (56.2%) followed by those having a PhD/board (23.7%). More than half of the participants were married (62.9%). Approximately (91.8%) of them had no alternative income. Among participants, 13.4% had additional certificate programs (Table 1).

The mean score (SD) of work method autonomy was 3.78 (0.58) and work scheduling autonomy was 3.68 (0.60) out of 5. The mean score of work criteria autonomy was 3.66 (0.61), with a total mean score of 3.71 (0.52). The mean score of turnover intention was 37.2 (7.92) out of a maximum possible score of 75 (Table 2).

Table 2. The mean score of the scales

Domain	Score mean (SD)
Work method autonomy	3.78 (0.58)
Work scheduling autonomy	3.68 (0.60)
Work criteria autonomy	3.66 (0.61)
Total score	3.71 (0.52)
Turnover intention	37.2 (7.92)

Regarding the correlations between the total mean score of turnover intention and other variables, we did not find a significant difference in the turnover intention scores with respect to gender (p value 0.946) and age (p value 0.345). Nurses were found to have the lowest turnover intention 32.9, while other healthcare workers had the highest turnover intention 42.3 (p value <0.001). Regarding the level of education, we found those having a diploma and master's to have the highest score (p value 0.005). According to marital status, the singles scored the highest mean score of turnover intention 39.4 (p value 0.004). There is no significant relationship between alternative sources of income and turnover intention (p value 0.689). We found a significant relationship in the presence of any certificate or program 41.7 (p value 0.002). We used the Pearson correlation coefficient in the autonomy and we found a weak but significant negative relationship between work method autonomy and turnover intention -0.238 (p value <0.001). Also, there was a significant negative correlation between turnover intention and the total autonomy score ($r = -0.19$, $p = 0.008$) (Table 3).

Table 4 presents the results of univariable and multivariable linear regression analysis to assess the association of turnover with various factors. In the univariable analysis, job title, education, marital status, certification, and job autonomy were significantly associated with turnover intention. In the multivariable model, we found that, as compared to nurses, other healthcare workers had higher scores adjusted B 8.53 (95% CI: 6.17–10.89). Education did not show any significant association. Ever-married people had lower turnover intention as compared to singles adjusted B -3.87 (95% CI: -5.80 to -1.94). Alternative sources of income showed no significant association. Those without any additional certificate had a significantly lower score, adjusted B -5.55 (95% CI: -8.46 to -2.63). In the final model, job autonomy had no significant association with total autonomy score adjusted B 1.99 (95% CI: -6.46 to 10.45). Domains within job autonomy also showed no significant association with turnover intention (Table 4).

Table 3. The correlations between the mean score of turnover intention and other variables

Variable	Mean (SD)	p value
Sex		
Male	37.2 (7.58)	0.946
Female	37.3 (8.28)	
Age, years		
Less than or equal to 35	36.9 (8.18)	0.345
More than 35	38.0 (7.29)	
Job title		
Nurse	32.9 (7.66)	<0.001
Physician	36.5 (8.02)	
Others	42.3 (4.62)	
Education		
Diploma	40.9 (5.25)	0.005
Bachelor	36.0 (8.06)	
Master	41.3 (5.45)	
PhD/board	36.7 (8.46)	
Marital status		
Single	39.4 (7.45)	0.004
Ever married	36.0 (7.93)	
Alternative sources of income		
No	37.3 (7.94)	0.689
Yes	36.5 (7.80)	
Have you ever attended any certificate programs?		
Yes	41.7 (5.73)	0.002
No	36.5 (7.99)	
Job autonomy		
Work method autonomy	-0.238^a	<0.001
Work scheduling autonomy	-0.165^a	0.022
Work criteria autonomy	-0.109^a	0.132
Total autonomy score	-0.191^a	0.008

^aPearson correlation coefficient.

Discussion

This study evaluated the level and predictors of turnover intention among PHWs in Buraidah, Saudi Arabia. Turnover intention is the direct antecedent factor of turnover behavior, which is easier to assess and more precise than turnover information provided by those who have already resigned [23].

In the present study, the mean score of turnover intention was 37.2 out of 75. A previous study conducted on general practitioners in China reported a relatively higher mean score of the total turnover intention, 15.4 out of 24 [18]. An online survey among healthcare workers in Saudi Arabia reported the turnover intention score to be 2.92 on a scale of 5 which is slightly higher than our findings [24].

Table 4. Linear regression analysis of factors associated with turnover intention among PHCs

Variable	Univariable		Multivariable	
	B (95% confidence interval)	<i>p</i> value	B (95% confidence interval)	<i>p</i> value
Sex				
Male	1		–	
Female	0.078 (–2.17 to 2.32)	0.946		
Age, years				
Less than or equal to 35	1		–	
More than 35	1.16 (–1.26 to 3.59)	0.345		
Job title				
Nurse	1		1	
Physician	3.62 (1.21–6.02)	0.003	–0.24 (–3.41 to 2.92)	0.879
Others	9.36 (6.91–11.81)	<0.001	8.53 (6.17–10.89)	<0.001
Education				
Diploma	1			
Bachelor	–4.85 (–9.31 to –0.38)	0.034	–1.58 (–5.33 to –2.16)	0.405
Master	0.46 (–4.71 to 5.63)	0.860	0.57 (–3.77 to 4.92)	0.793
PhD/board	–4.20 (–8.98 to 0.57)	0.084	1.75 (–3.03 to 6.54)	0.471
Marital status				
Single	1			
Ever married	–3.42 (–5.72 to –1.11)	0.004	–3.87 (–5.80 to –1.94)	<0.001
Alternative sources of income				
No	1			
Yes	–0.83 (–4.91 to 3.25)	0.689	–3.23 (–6.74 to 0.27)	0.071
Have you ever attended any certificate programs?				
Yes	1			
No	–5.15 (–8.37 to –1.94)	0.002	–5.55 (–8.46 to –2.63)	<0.001
Job autonomy				
Work method autonomy	–3.26 (–5.16 to –1.36)	<0.001	–3.23 (–6.93 to 0.47)	0.087
Work scheduling autonomy	–0.215 (–3.99 to –0.31)	0.022	–3.01 (–8.48 to 2.44)	0.266
Work criteria autonomy	–1.40 (–3.24 to 0.42)	0.132	–	
Total autonomy score	–2.86 (–4.96 to –0.77)	0.008	1.99 (–6.46 to 10.45)	0.642

The majority of the studies focused on turnover intention reported the rate of turnover intention rather than the score of turnover intention. Additionally, there was a focus on nurses more than other specialties. The global prevalence of turnover intention among general practitioners was estimated to be 47% [25]. Based on a systematic review and meta-analysis of PHW in Sub-Saharan Africa [26], it was found that turnover intention was present in 50.47% of nurses. Another Chinese systematic review and meta-analysis enrolled 16 cross-sectional studies that included 37,672 PHWs, and the prevalence of turnover intention was estimated to be 30.4% [27].

In the Saudi Arabian context, a study among tertiary care nurses reported a very high prevalence of turnover intention (94%) [28]. On the other hand, a

study among healthcare workers during COVID-19 reported that 32.3% of the workers had turnover intention [29]. Another study among primary care nurses reported the prevalence of turnover intention to be 40% [19]. There are wide variations in the reported prevalence of turnover intention globally as well as locally in Saudi Arabia. These variations can be attributed to differences in: work settings, type of healthcare workers, study tools, and definition of outcomes. Regardless of these differences in the reported burden of turnover intention, findings revealed that turnover intention is a significant problem globally as we found in this study. It is, therefore, necessary for policymakers and planners to develop effective strategies to ensure the retention of workers for effective and efficient care delivery.

A study conducted on primary care doctors in China reported that age, location, job title, work pressure, doctor's position level, and job satisfaction were associated with turnover intention among primary care physicians [30]. In the current study, we found that the mean score of turnover intention was significantly affected by job title, but there was no impact of age on turnover intention. Additionally, we didn't measure job satisfaction or work pressure as we focused on the personal characteristics, but we found an impact of marital status, and job autonomy on turnover intention. This can be explained by the fact that is related to the variation of tools used in our study and the focus of our study on predictors of turnover intention rather than job satisfaction and work conditions.

Based on a previous systematic review, turnover intention was significantly associated with variables including age, gender, education, marital status, and job title [27]. A study from Ethiopia demonstrated that turnover intention was associated with education level, marital status, and age [31]. In the present study, turnover intention was significantly associated with marital status where singles scored the highest mean of turnover intention. On the other hand, and in contrast to the previous study, turnover intention wasn't associated with education and age in our study. On the other hand, a study among nurses in Riyadh also reported no association of age with turnover intention [28].

In a study, intention of turnover was associated with the professional category [32]. Our study was conducted on those working in PHCs; we found that the mean score of turnover intention was significantly associated with job title (professional category), whereas other professional categories scored the highest mean score of turnover intention as compared to nurses. This is an important finding that calls for further research into exploring characteristics and factors among other categories of healthcare workers that increase their turnover intention. Additionally, healthcare managers should also focus on this category of healthcare workers and take appropriate actions to improve their work life and reduce turnover intention.

A previous study from China conducted on medical staff working in rural primary medical institutions found that the predictors of turnover intention based on multilevel logistic regression included a bachelor's degree or above and an intermediate professional title [23]. In the current study, based on multivariate analysis, educational level was not found to be a

predictor for turnover intention, but univariate analysis revealed that a bachelor's degree was a predictor for turnover intention. Similar were findings in a study among nurses in a tertiary care hospital in Saudi Arabia where educational status does not influence turnover intention [28].

Financial benefits are important predictors of job satisfaction and turnover intention. A study among nurses and midwives in Ghana revealed that the financial factor represented in salary was a predictor for staying at the organization (AOR = 0.07) [33]. We did not directly measure satisfaction with financial benefits. However, the financial factor was assessed in this study as the presence of alternative sources of income and this factor wasn't a predictor for turnover intention. Similarly, another study among nurses in Saudi Arabia reported no association between salary with turnover intention [28]. This could be due to the fact that in Saudi Arabia as compared to low-income countries or other developing countries, the salary packages are competitive and workers are compensated according to their qualifications and experiences.

Job autonomy can have an impact on the mental health and job satisfaction of healthcare workers. A previous study from Bahrain conducted during the COVID-19 period revealed that turnover intention was positively associated with job autonomy [34]. In the current study, we did not an association between job autonomy and turnover intention. Similarly, a study from China among social workers reported no association between turnover intention and job autonomy [35]. In contrast, other studies among various cadres of healthcare workers reported a negative relationship between turnover intention and job autonomy [36, 37]. It is also reported that job autonomy does not directly affect the turnover intention; rather it moderates job satisfaction and motivation which in turn affects the turnover intention. Future studies should be conducted on a larger sample and consider other factors such as job satisfaction and motivation while evaluating the relationship between job autonomy and turnover intention.

This study is among a few studies conducted among PHWs to investigate turnover intention. The limitations of this study include the small sample size and the limitation of the investigated predictors to personal characteristics. Further studies are recommended to be established and conducted on a larger sample size, and other healthcare settings with the investigations of more predictors for turnover intention including job satisfaction and motivation.

Conclusions

Turnover intention was a significant problem among PHW in Buraidah, Saudi Arabia. The predictors of turnover intention included job title, marital status, and attending or having certificate programs. This calls for ministry, healthcare leaders, and managers to conduct employees' satisfaction and motivation surveys to identify the current status and high-risk groups. There is a need to develop focused programs and initiatives to decrease turnover intention among high-risk professional groups through enhanced autonomy and involvement in decision-making. Third, it is also necessary that adequate opportunities for continuing education and professional growth are provided with clear career development pathways. Finally, large-scale studies are needed to provide robust evidence on the problem of turnover intention and its predictors.

Statement of Ethics

Ethical approval was obtained from the Qassim Regional Bioethics Committee (Approval No. 607/45/5564, date: November 7, 2023). Written informed consent to participate was not directly obtained but inferred by the completion of the survey. The first page of the online survey link contained consent and would

proceed further only if the participant agreed. Confidentiality was assured to all participants who agreed to participate in this research.

Conflict of Interest Statement

The authors have no conflicts of interest to declare.

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Author Contributions

Adel Alrashdi and Unaib Rabbani conceptualized the study and developed the methods. Adel Alrashdi cured the data. Adel Alrashdi analyzed the data under supervision of Unaib Rabbani. Adel Alrashdi wrote the initial draft, and Unaib Rabbani reviewed and edited the draft. All authors have approved the final manuscript.

Data Availability Statement

The data that support the findings of this study are not available publicly because of complex calculations involved in the measurement of tools. However, data are available on request from the corresponding author.

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